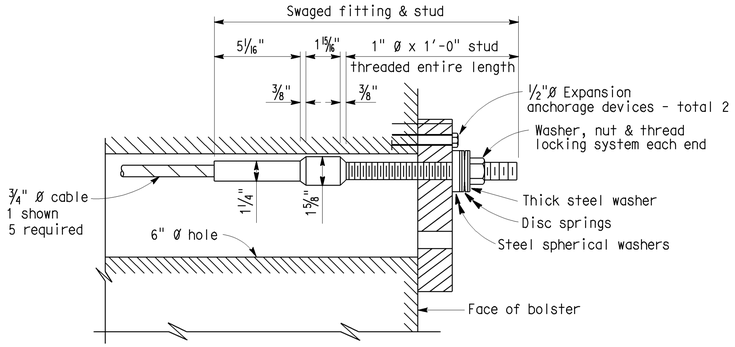
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED ENGINEER - CIVIL

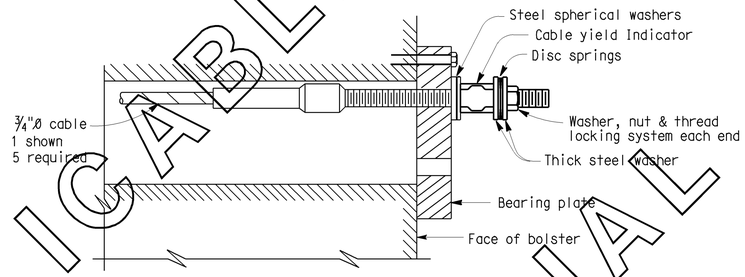
REGISTERED PROFESSIONAL ENGINEER — No. ____ Exp. ____ CIVIL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



CABLE END ANCHORAGE TYPE A



CABLE END ANCHORAGE TYPE B

DISC SPRINGS AND WASHERS

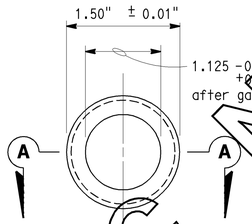
"All dimensions in inches, except as noted"

	DISC SPRING					STEEL SPHERICAL WASHER			THICK WASHER		
L*	ID	OD	†	H	COLOR CODE	ID	OD	Nom thick.	ID	OD	†**
00.0 - 25.0	1.00	2.00	0.065	0.130	WHITE	1.19	2.25	0.50	1.03	2.00	0.25
25.1 - 31.9	1.00	2.00	0.084	0.136	RED	1.19	2.25	0.50	1.03	2.00	0.25
32.0 - 37.9	1.00	2.00	0.097	0.145	BLUE	1.19	2.25	0.50	1.03	2.00	0.25
38.0 - 45.0	1.25	2.50	0.120	0.180	YELLOW	1.31	2.50	0.50	1.16	2.25	0.25

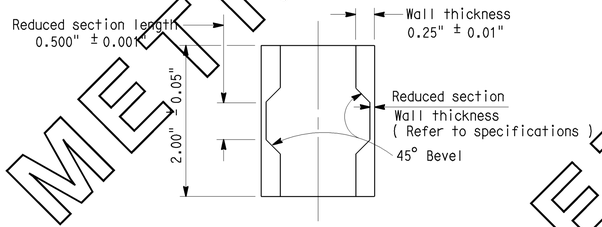
* For limits of length L (ft), see "Hinge Restrainer, Completed Construction-Type C1". Refer to bridge detail sheets for approximate length required.

** Minimum value

Note: All OD and ID dimensions for washers and disc springs shall meet the dimensional tolerances for harden steel washers, ASTM F436



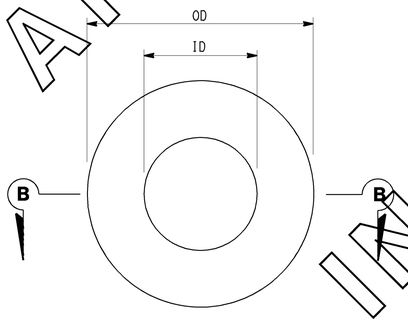
END VIEW



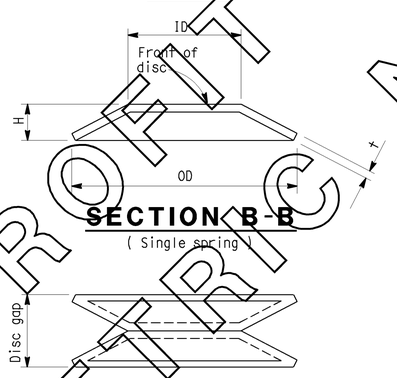
SECTION A-A

CABLE YIELD INDICATOR

All dimensions are before galvanizing except as noted.



PLAN



SECTION B-B

(Single spring)

AS INSTALLED ON STUD

DISC SPRING

Note: For dimensions not shown, see table

TYPE C-1 RESTRAINER UNIT INSTALLATION

PROCEDURE

1. Install Cable Yield Indicator, spherical washers, disc springs, washers and nut on all studs of either anchorage (Type B). Install spherical washers, disc springs, washers and nut on all studs of the remaining anchorage (Type A).

   Only one Cable Yield Indicator per cable.

   Disc's shall be installed front to front as shown in "Disc Spring" detail.

2. Tighten the nuts on the cable until the disc springs collapse and there is no disc gap remaining between the discs.

   Both anchorages of a single cable unit shall be adjusted simultaneously.

   All cable units shall be tightened in this manner prior to applying the thread locking system.

3. Place thread locking system on each stud of each tightened cable.

   Back off the nut at both anchorages a distance equal to the maximum additional amount that the hinge is expected to open, relative to existing ambient conditions, as shown on the plans for thermal movement rating.

   The process of applying the thread locking system and backing off the nut shall be sequenced consistent with the setting time for the thread lock adhesive.

STANDARD DRAWING					
RELEASE DATE 4/20/98	DESIGN	BY STEPHEN SAHS	CHECKED RAY ZELINSKI	RELEASED BY	
FILE NO. xs7-710-1	DETAILS	BY STEPHEN SAHS	CHECKED RAY ZELINSKI		
	SUBMITTED	BY RAY ZELINSKI	DRAWING DATE 4/98	OFFICE CHIEF	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.

POST MILE

TYPE C-1 CABLE RESTRAINER DETAILS

DS OSD 2147A (CADD 7/97)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU
EA

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)												SHEET	OF

DATE PLOTTED => 16-JAN-2004 TIME PLOTTED => 15:31

USERNAME => jsanchez

xs7-710-1.dgn